

The opinion in support of the decision being entered today was *not* written for publication in a law journal and is *not* binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

---

BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

---

*Ex parte* TADD H. HOGG, BJORN R. CARLSON, VINEET GUPTA,  
and ANDREW A. BERLIN

---

Appeal 2007-0336  
Application 09/033,222  
Technology Center 3600

---

Decided: March 29, 2007

---

Before ANITA PELLMAN GROSS, LANCE LEONARD BARRY, and  
ALLEN R. MACDONALD, *Administrative Patent Judges*.

GROSS, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Hogg, Carlson, Gupta, and Berlin (Appellants) appeal under 35 U.S.C. § 134 from the Examiner's final rejection of claims 1 through 20, which are all of the claims pending in this application.

Appellants' invention relates to a transport assembly for moving an object. Control of individual units in the assembly is accomplished with

both computational agents (or local controllers) and a global controller. (See Specification 1:15-18 and 4:18-5:6.) Claim 1 is illustrative of the claimed invention, and it reads as follows:

1. A transport assembly for moving an object, comprising:

sensor units and actuator units arranged on the transport assembly;  
said sensor units for providing positional information of the object; said  
actuator units for moving the object relative to the transport assembly;

computational agents coupled [sic, to] said sensor units and said  
actuator units; each computational agent receiving positional information  
from at least one sensor unit and computing a desired actuator response for  
at least one actuator unit in a spatially localized region of control on the  
transport assembly; and

a global controller, coupled to said computational agents, for  
receiving aggregate operating characteristics from, and delivering global  
constraints to, said computational agents;

wherein said computational agents are grouped into a plurality of local  
neighborhoods; the computational agents in each local neighborhood being:  
(a) coupled to sensors and actuators that are located physically proximate to  
each other on the transport assembly; and (b) communicatively coupled to  
each other for directly communicating their desired actuator responses to  
each other; and

wherein each of said computational agents use (i) the global  
constraints delivered by the global controller, (ii) the desired actuator  
responses received from the computational agents in their local  
neighborhood, and (iii) the positional information from the at least one  
sensor unit in its spatially localized region of control, to determine  
adjustments to the at least one actuator unit in its spatially localized region  
of control to move the object along the transport assembly.

The prior art references of record relied upon by the Examiner in  
rejecting the appealed claims are:

Harada	US 5,553,003	Sep. 03, 1996
Jackson ('636)	US 5,634,636	June 03, 1997
Guenther ('112)	US 6,027,112	Feb. 22, 2000 (filed Mar. 02, 1998)
Jackson ('316)	US 6,039,316	Mar. 21, 2000 (filed Mar. 02, 1998)
Guenther ('052)	US 6,119,052	Sep. 12, 2000 (filed Mar. 02, 1998)

Satoshi Konishi and Hiroyuki Fujita, *A Conveyance System Using Air Flow Based on the Concept of Distributed Micro Motion Systems*, 3 J. Microelectromechanical Systems, No. 2, 54-58 (June 1994). (Fujita<sup>1</sup>)

Claims 1 through 20 stand rejected under 35 U.S.C. § 103 as being unpatentable over Fujita in view of Harada.

Claims 1 through 20 stand rejected under the judicially created doctrine of obviousness type double patenting over Guenther ('052), Jackson ('316), and Guenther ('112).

Claims 1 through 20 stand rejected under the judicially created doctrine of obviousness type double patenting over Jackson ('636) alone or in combination with Harada.

We refer to the Examiner's Answer (mailed November 24, 2004) and to Appellants' Brief (filed November 25, 2002) and Reply Brief (filed January 20, 2005) for the respective arguments.

#### SUMMARY OF DECISION

As a consequence of our review, we will reverse the obviousness rejection of claims 1 through 20. We also will reverse the obviousness type double patenting rejection of claims 1 through 20 over Jackson ('636) alone

---

<sup>1</sup> The Examiner refers to this reference as Fujita, so we will do the same.

or in combination with Harada, but we will affirm *pro forma* the obviousness type double patenting rejections of claims 1 through 20 over Guenther ('052), Jackson ('316), and Guenther ('112).

### OPINION

Appellants contend (Br. 8) that nothing in Fujita discloses or suggests local neighborhoods of computational agents, as recited in independent claims 1 and 15. The Examiner asserts (Final Rejection 3) that "each module . . . may be construed as a local neighborhood, and that it is inherent that in order for such a micro motion system to work, small groups of these local neighborhoods would have to be coordinated."

The phrase "local neighborhood" is defined "by sensors and actuators that are located physically proximate to each other on the transport assembly" (Specification, ll. 6-8). Thus, a local neighborhood includes plural sensors and actuators that are close together, not a single sensor and actuator assembly, as asserted by the Examiner. Further, the Examiner has provided no evidence that for a micro motion system to work, small groups of local neighborhoods inherently must be coordinated.

Under the doctrine of inherency, if an element is not expressly disclosed in a prior art reference, the reference will still be deemed to anticipate a subsequent claim if the missing element "is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill." *Cont'l Can Co. v. Monsanto Co.*, 948 F.2d 1264, 1268, 20 USPQ2d 1746, 1749 (Fed. Cir. 1991). "Inherent anticipation requires that the missing descriptive material is 'necessarily present,' not merely probably or possibly present, in the prior art." *Trintec Indus., Inc. v. Top-U.S.A. Corp.*, 295 F.3d 1292, 1295, 63 USPQ2d 1597, 1599 (Fed. Cir. 2002) (quoting *In re*

*Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999)).

*Rosco Inc. v. Mirror Lite Co.*, 64 USPQ2d 1676 (Fed. Cir. 2002). If anything, Fujita suggests that actuators act independently from each other in that Fujita discloses (Fujita, p. 54) that a portion of the complicated task is allotted to each actuator. We find no suggestion in Fujita to group the actuators into local neighborhoods in which the actuators communicate with each other nor to use the response received from other actuators in the neighborhood to compute an actuator response.

We likewise find no suggestion in Harada to modify Fujita to include local neighborhoods. Harada discloses (Harada, col. 1, ll. 56-60) an improved supervising system in a system already equipped with subsystems. However, there is no suggestion to group actuators into local neighborhoods with elements within each local neighborhood communicating with each other. Thus, since the combination of Fujita and Harada fails to teach or suggest each and every element of the claims, we cannot sustain the obviousness rejection of claims 1 through 20 over Fujita and Harada.

Regarding the obviousness type double patenting rejection over Guenther ('052), Jackson ('316), and Guenther ('112), Appellants indicate (Br. 12) that they do not contest these rejections and intend to file a terminal disclaimer to overcome the rejections. Accordingly, we affirm these rejections *pro forma*.

As to the obviousness type double patenting rejection over Jackson ('636), the Examiner relies on the disclosure of the patent for

the teachings to modify the claims of the patent. Such reliance is improper in an obviousness type double patenting rejection.

Accordingly, we cannot sustain the obviousness type double patenting rejection of claims 1 through 20 over Jackson ('636). As to the rejection over the claims of Jackson ('636) in view of Harada, the Examiner states (Answer 8) that the "'636 claimed subject matter is as described previously" and relies on Harada for "hierarchical control." However, as stated *supra*, the portions of Jackson previously described were improperly relied upon. Further, we find very little correspondence between the patent claims and the application claims. Therefore, we cannot sustain the obviousness type double patenting rejection of claims 1 through 20 over Jackson ('636) in view of Harada.

#### ORDER

The decision of the Examiner rejecting claims 1 through 20 under 35 U.S.C. § 103 is reversed. The decision of the Examiner rejecting claims 1 through 20 under obviousness type double patenting is affirmed *pro forma* as to Guenther ('052), Jackson ('316), and Guenther ('112) but reversed as to Jackson ('636) alone or in combination with Harada.

Appeal 2007-0336  
Application 09/033,222

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a). *See* 37 CFR § 1.136(a)(1)(iv).

AFFIRMED

jlb

RONALD ZIBELLI  
XEROX CORPORATION  
XEROX SQUARE 20A  
ROCHESTER, NY 14644